231333

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MEMORANDUM

SUBJECT: Region V Request for Concurrence on a Nationally Significant or Precedent Setting Removal Action at the N-Forcer Site in Dearborn, Michigan.

FROM: Gary Turner, Acting Director
Program Operations and Coordination Division

TO: Debbie Dietrich, Director
Office of Emergency Management

This memorandum transmits the attached Region V request for concurrence on a proposed time-critical removal action at the N-Forcer site (also known as the W.R. Grace Dearborn plant, Henn St. Facility) in Dearborn, Wayne County, Michigan. This request is considered nationally significant because the primary contaminant is asbestos.

The attached memo from Richard Karl to you describes in detail the history of the site. This action will involve removal of the asbestos form soil on the site, defining and investigating off-site locations, and removing asbestos from up to eight off-site locations.

I recommend that you approve the Region V request. Regional coordinators, OGC and OECA have reviewed the attached action memorandum and concur with the action.

If you would like additional information, please contact Sherry Fielding at 564-6174 or Jeff Crowley at 564-8753.

Attachment

inside the building, have been appropriately cleaned up; characterize the extent and magnitude of remaining vermiculite contamination in on-site soils; based on the results of the characterization, develop a plan to eliminate or reduce future exposures, and; characterize the degree and magnitude of remaining contamination in off-site soils in the neighborhood immediately surrounding the former WRG facility.

ATSDR, MDCH, and the Michigan Department of Environmental Quality have requested U.S. EPA assistance in implementing these recommendations.

The Action Memorandum is attached for your review. My approval awaits your concurrence.

Concur:

Deborah Dietrich 2-18-05

Deborah Dietrich, Director, Office of Emergency Management Date

Non-Concur:

_____ _____

Deborah Dietrich, Director, Office of Emergency Management Date

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
EMERGENCY RESPONSE BRANCH
9311 GROH ROAD, ROOM 216
GROSSE ILE, MI 48138-1697

ACTION MEMORANDUM

REPLY TO ATTENTION OF:

SUBJECT: Request for a Time-Critical Removal Action at the N-Forcer Site in Dearborn, Wayne County, Michigan (Site ID #B55P)

FROM: Brian Kelly, On-Scene Coordinator
Emergency Response Section 1

TO: Richard C. Karl, Director
Superfund Division

THRU: Thomas Geishecker, Acting Chief
Emergency Response Branch

I. PURPOSE

This action memorandum requests and documents approval to expend up to $964,000 to conduct a time-critical removal action at the N-Forcer Site (also known as W.R. Grace & Company Dearborn plant and the Henn Street facility), 14300 Henn Street, Dearborn, Wayne County, Michigan, 48126. The proposed removal action is necessary to mitigate the immediate threat to public health posed by the presence of fibrous amphibole Libby Asbestos (LA). The asbestos contamination is the result of expansion of vermiculite from W.R. Grace's Libby, Montana, mine.

The response action proposed will mitigate the threats by: identifying facility soils contaminated with asbestos using modified polarized light microscopy (MPLM) or similar method; removing asbestos from all soil areas on the Site where asbestos is present at levels above 1% or which may pose an inhalation hazard; defining and investigating potential off-site locations where asbestos from the Site may have migrated or been moved; and removing asbestos from up to eight identified off-site locations where asbestos is present at levels above 1% or which may pose an inhalation hazard.

The proposed removal action is time-critical because of continued potential pathways of exposure.

This removal action will not address residential indoor materials or viable consumer products. The project will require an estimated 44 (34 removal, 10 day sampling) on-site working days to complete.

Asbestos removals are nationally significant. U.S. EPA is following Agency for Toxic Substances and Disease Registry (ATSDR), Michigan Department of Community Health (MDCH), and Michigan Department of Environmental Quality (MDEQ) guidance on cleanup levels. The removal will follow precedents and protocols set by other asbestos cleanups. The N-Forcer Site is not on the National Priorities List.

II. SITE CONDITIONS AND BACKGROUND

CERCLIS ID #MIN 000 508 756

A. Site Description and Background

The former W.R. Grace & Company (WRG) Dearborn plant (also known as the Henn Street Facility, Dearborn plant, and N-Forcer Site) is located at 14300 Henn Street, Dearborn, Wayne County, Michigan. Land use in the surrounding neighborhood includes recreational (a soccer field is located across the street), residential, educational, commercial, and industrial. The Site is currently defined as the 2.7 acre parcel at 14300 Henn Street, Dearborn, Michigan. The parcel currently has a single 16,000-square-foot building, which was utilized for the processing of vermiculite ore into attic insulation and lightweight concrete aggregate. The original Site consisted of a railroad spur, where raw ore was off-loaded, two storage silos, exfoliation furnaces, and bagging/processing space. Processing of vermiculite ore ended in 1989, when WRG ceased operations at the Dearborn plant. The storage silos and exfoliation furnaces were dismantled and removed and the railroad spur is no longer used.

During the 1950s, the Zonolite Company started leasing the facility to process vermiculite ore from Libby, Montana. In 1963, the Zonolite Company was acquired by WRG and continued to use the Dearborn plant to manufacture attic insulation and lightweight concrete products using Libby vermiculite ore. Die, Mold & Automation Components, Inc. (DMACI), currently operates on the Site.

According to WRG shipping records, the Dearborn plant processed about 206,000 tons of vermiculite ore from Libby, Montana, from 1966 to 1988 (this may be an underestimate as WRG likely started processing vermiculite at least 10 years prior to 1966). Over time, it became known that vermiculite ore mined from Libby was contaminated with asbestos fibers, including the amphibole asbestos varieties tremolite and actinolite, as well as the related fibrous asbestiform minerals winchite, richterite, and ferro-edenite. In this document, the asbestos in Libby vermiculite is referred to as LA.

Studies throughout the 1980s indicated that vermiculite workers showed increased rates of asbestos-related respiratory diseases. The findings at Libby and sites processing ore from Libby provided the impetus for investigating the Dearborn Site, as well as other sites across the nation that received asbestos-contaminated vermiculite from the Libby mine.

B. Vermiculite Processing

Vermiculite is a non-fibrous, platy weathered mica mineral type used in many commercial and consumer applications. Raw vermiculite ore is used in gypsum wallboard, cinder blocks, and other products. Exfoliated vermiculite ("popped" vermiculite) is formed by heating the ore to approximately 2,000 degrees Fahrenheit, which explosively vaporizes the water contained within the mineral structure and causes the vermiculite to expand by 10 to 15 times. The finished, expanded product is used as loose fill insulation (mainly for attics), a fertilizer carrier, and an aggregate in lightweight concrete.

ATSDR and MDCH interviews with former workers report that employees had the opportunity to take off-spec product (i.e. "popped" vermiculite) home for private use, typically as fill material in driveways or yards. Interviews with local residents indicated that there were large piles of silvery gray material in the southeast corner of the facility near the railroad tracks during the early-to-mid 1960s. It was reported that children would play in these piles and that some would load wagons of the material to bring home. Other residents described a gondola-like structure located near the office of the facility that would be loaded with bags of silvery material that people would pick up and use at their residence. Given the description of the material and the detection of LA in the surface soil near these locations on the facility, it is likely that the material that children played in and was brought to their homes was the waste stoner rock from the vermiculite exfoliation process. This stoner rock waste material is known to contain high levels of LA.

WRG reportedly cleaned the Dearborn plant in 1990, collecting four air samples inside the building and one outside the building to document their cleanup. Sample results, presumably from phase contrast microscopy analysis, indicated airborne fiber levels at 0.0005 fibers per cubic centimeter (f/cc), which is below the current Occupational Safety and Health Administratic issible exposure limit of 0.1 f/cc asbestos.

C. Off-Site Migration of Plant Materials

The vermiculite exfoliation process is known to produce large amounts of aerosolized particulate dust. In the case of Libby vermiculite, this dust may contain asbestos species consistent with the Montana ore (including tremolite and actinolite). Based on community interviews, dust from the Dearborn operation was known to frequently migrate off-site. Off-site migration of fugitive materials has been documented in several Inspection Reports and Complaint Cards filed through the Wayne County Air Quality Management Division from 1983 through 1990.

Adding to these complaints is a letter from the City of Dearborn to the Michigan Department of Public Health (now the MDCH). The subject line of the letter is "Manufacturer of Insulating Product (Vermiculite), Releasing Product into Surrounding Neighborhood." The complainant, a carpenter working in the area, reported that his

crew became ill after "ingesting the airborne product." The complainant described symptoms such as bitter taste, coughing, and vomiting.

D. Site Visits and Sampling

U.S. EPA inspected former vermiculite processing plants throughout the U.S. in 2000 to ascertain whether these sites still contained asbestos-contaminated vermiculite or related waste materials. U.S. EPA visited the Dearborn plant on February 25, 2000, to conduct a Phase I field inspection and owner interview. The resulting Preliminary Inspection Report, dated March 8, 2000, concluded that "no visual evidence of vermiculite from the Libby, Montana, mine was observed anywhere on the property." The WRG Dearborn plant was classified by U.S. EPA as "No Further Action Necessary." This initial assessments have been revised based on more recent investigations and information.

On September 27, 2002, staff from ATSDR, U.S. EPA, and MDCH visited the DMACI facility as part of ATSDR's National Asbestos Exposure Review. During this visit, staff observed vermiculite ore on the ground on the north and southeast areas of the property. Staff also observed material consistent with stoner rock behind the wooden slats of an interior wall in the main DMACI building.

These findings led ATSDR to ask U.S. EPA to test the wall cavity material, the indoor air of the room where the material was located, and several on-site soil samples for asbestos. On January 14, 2003, U.S. EPA collected four composite and two grab soil samples from around the property as well as two air samples from the work area and one grab sample of material from the interior wall space inside the main building. Analysis of the on-site composite surface soil samples (taken from five separate locations 0-2 inches below the surface) showed concentrations of tremolite and actinolite asbestos species ranging from non-detect (<1%) to 3%. The material in the wall cavity was found to contain fi[illegible]% to 6.9% asbestos, depending on the analytical method used. The detection limit of <1% is not a health-based standard, but represents the detection limit of the two methods used for the composite and grab samples.

E. Community Characteristics

In Michigan, the low-income percentage is 29% and the minority percentage is 18%. To meet the Environmental Justice (EJ) concern criteria, the area within 1 mile of the Site must have a population that is twice the state low-income percentage and/or twice the state minority percentage. That is, the area must be at least 58% low-income and/or 36% minority. At this Site, the low-income percentage is 51% and the minority percentage is 23% as determined by Arcview 3.0 EJ analysis. Therefore, this Site does not meet the Region's EJ criteria based on demographics as identified in "Region 5 Interim Guidelines for Identifying and Addressing a Potential EJ Case, June 1998."

F. Enforcement Activities

On April 9, 2003, a General Notice of Potential Liability was sent to the current Site owner Paul Martin. Discussions with Mr. Martin resulted in his agreement to remove and stabilize asbestos found inside the building. On March 3, 2004, Mr. Martin's consultant, Next Generation Service Group, submitted close out documentation of removal or stabilization of the indoor asbestos. As Mr. Martin did not notify U.S. EPA before implementing the cleanup plan, U.S. EPA is continuing to evaluate the work.

On April 9, 2003, a General Notice of Potential Liability was sent to W.R. Grace & Co. W.R. Grace & Co. informed U.S. EPA they were in bankruptcy and would not be participating in a cleanup.

On July 9, 2003, a General Notice of Potential Liability was sent to the adjacent property owner CSX Transportation. CSX sampled the railroad property adjacent to the former W.R. Grace facility, and on November 16, 2004, CSX consultant Arcadis reported the first round of sample results showed no asbestos. These results are inconsistent with U.S. EPA's results taken directly adjacent to the railroad property, which showed levels of asbestos between 1 and 6 percent. U.S. EPA is awaiting the second round of results.

G. MDCH and ATSDR Health Consultation Conclusions

MDCH has prepared a health consultation for the Site on behalf of ATSDR. The health consultation includes several conclusions concerning potential health risks currently presented by Site-related asbestos contamination. The conclusions as they apply to a U.S. EPA removal are summarized below:

1. The presence of asbestos-contaminated material (ACM) within the main building posed an indeterminate public health hazard to current workers at the Dearborn Site prior to its removal in December 2003. Likewise, exposure of household contacts of current DMACI workers prior to December 2003 posed an indeterminate public health hazard. It should be noted that airborne concentrations were found to be quite low and that the magnitude of this pathway is reduced compared to other historical pathways of exposure. Currently, this pathway probably represents no apparent health hazard to workers or their household contacts; however, efforts are ongoing to verify this conclusion (U.S. EPA and the Health Agencies are reviewing the current owners cleanup).

2. There are areas of residual LA contamination remaining in on-site soils. Exposure of workers, visitors, trespassers, and contractors to LA-contaminated soils on Site poses an indeterminate public health hazard. Changes in the condition or use of the property may exacerbate on-site exposures.

3. The Dearborn plant no longer processes vermiculite at the Site. The pathways for current or future community exposure to airborne Libby asbestos from facility emissions and to on-site waste piles have been greatly reduced, yet there remains an indeterminate health hazard. There is a small but potential risk that still exists from residual vermiculite contamination in the on-site soils, either from off-site migration of the soils or from resident exposure to unrestricted areas of the DMACI property. Plans to perform sampling in the surrounding neighborhood are ongoing and may lead to a re-evaluation of this hazard category as appropriate.

4. Residential indoor exposure to household dust containing Libby asbestos fibers from past plant emissions or waste rock brought home for personal use is considered no apparent health hazard for present and future community members. There is a small but potential risk that still exists from off-site migration of the residual vermiculite contamination in the on-site soils. Plans to perform sampling in the surrounding neighborhood are ongoing and may lead to a re-evaluation of this hazard category as appropriate.

5. Currently, individuals within the community could be exposed to airborne Libby asbestos from waste rock used as fill material, for gardening, or for paving driveways. This exposure pathway is an indeterminate public health hazard because insufficient information is available to determine the extent of the use of waste material within the community. Ongoing interviews and data collection from the neighborhood may lead to a re-evaluation of this hazard category as appropriate.

Table 3 of the Health Consultation performed by the MDCH, under Cooperative Agreement with the U.S. Department of Health and Human Services ATSDR, listed a number of potential pathways. Those relevant to this removal action are:

Table 3: Summary of Inhalation Pathways Considered for the WRG Dearborn, MI Site

Pathway Name	Exposure Scenario(s)	Past Pathway Status	Present Pathway Status	Future Pathway Status
On-site Soils	On-site workers, contractors, or community members disturbing contaminated on-site soils (residual contamination, buried waste)	Complete	Potential	Potential
Residential Outdoor	Community members using contaminated vermiculite or waste material at home or exposed as a result of windborne deposition from the facility	Potential	Potential	Potential

H. MDCH and ATSDR Health Consultation Recommendations for the Facility and Off-Site Locations

1. Verify that areas of contaminated vermiculite remaining inside the DMACI building, have been appropriately cleaned up. Verify remediation results with post-cleanup indoor air sampling or other appropriate techniques.

2. Characterize the extent and magnitude of remaining vermiculite contamination in on-site soils. Based on the results of the characterization, develop a plan to eliminate or reduce future exposures.

3. Characterize the degree and magnitude of remaining contamination in off-site soils in the neighborhood immediately surrounding the former WRG facility.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health or Welfare

The conditions at the N-Forcer Site present an imminent and substantial threat to the public health, or welfare, and the environment, and meet the criteria for a time-critical removal action provided for in the National Contingency Plan (NCP), Section 300.415, Paragraph (b)(2). These criteria include, but are not limited to, the following:

(i) Actual or potential exposure to nearby human populations, animals, or the food chain from hazardous substances;

As documented by sampling conducted on-site, the concentrations of asbestos found in the surface soil show a human exposure pathway exists.

(ii) High levels of hazardous substances in soils largely at or near the surface, that may migrate;

Vermiculite and pieces of amphibole asbestos are visible at the site surface, and could be potentially re-aerosolized and transported off-site by vehicles, bicycle, and pedestrian traffic. Wind, particularly in dry summer months, can also lead to off-site migration of fine asbestos fibers from contaminated surface soils. Rainfall and snow melt would also tend to wash the fibers off of the Site and to nearby streets and sewers.

Currently, U.S. EPA has not established an asbestos level in soil below which an exposure does not pose a risk. The 1% cut-off level for regulation under the Toxic Substances Control Act abatement program was established on the basis of analytical capability at the time, and was not established based on the level of risk represented. MDEQ has identified an asbestos cleanup criteria of 1% based on detection limits, which is a default to the "target detection limit." U.S. EPA has determined that in certain settings, concentrations of less than 1% posed unacceptable inhalation risks when subject to disturbance.

(iii) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;

The warmer temperatures and dry weather typical in the summer and fall months in Dearborn will contribute to the migration of asbestos-containing soils. As soils dry they are more likely to be transported by wind, causing the asbestos to become airborne and available for inhalation. In the spring time snow melt, rainfall, or other forms of run-off will tend to spread the asbestos off Site.

(iv) The availability of other appropriate Federal or State response mechanisms to respond to the release

No other Local, State, or Federal agency is in the position or currently has the resources to independently implement an effective response action to address the on-going threats presented at the Site. U.S. EPA will conduct its actions in cooperation with State and local authorities. ATSDR, MDCH, and MDEQ have requested U.S. EPA assistance

IV. ENDANGERMENT DETERMINATION

The predominant fibrous nature of minerals found at the N-Forcer Site are LA amphibole asbestos. Asbestos can cause asbestosis and is a recognized human carcinogen, causing lung cancer and mesothelioma, a lethal neoplasm of the lining of the chest and abdominal cavities. Cancer of the larynx and esophageal lining has also been associated with exposure to asbestos. Commercial forms of asbestos have been found to be carcinogenic in experimental animals. The ATSDR and MDCH have recommended actions to remove the threat and close the human exposure pathways.

Actual or threatened releases of asbestos from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare, and the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

The OSC proposes to undertake the following actions to mitigate the potential threats posed by the presence of hazardous substances at the Site:

1. Develop and implement a Health and Safety Plan and Site Security Plan;
2. Identify potential off-site locations through an air dispersion model and interviews, newspaper ads, and a public meeting, where residents will be asked to identify vermiculite fill around their homes;
3. Develop and implement an on-site and off-site sampling plan using the MPLM screening level (subsurface areas such as parking lots and sidewalks will not be sampled);
4. Determine the horizontal extent of asbestos contamination in the contaminated soils and identify areas requiring response actions;
5. Excavate and remove asbestos-contaminated soils to a maximum depth of 18 inches or otherwise prevent exposure from on-site surface soils from areas contaminated with ≥1% asbestos or which may pose an inhalation hazard;
6. Excavate and remove or otherwise prevent exposure from asbestos contaminated off-site soils if investigations find no more than 8 affected homes;
7. Dispose of contaminated soils at an EPA-approved off-site disposal facility in accordance with the U.S. EPA Off-Site Rule (40 CFR §300.440);
8. Perform personal air sampling and ambient air sampling during removal activities;
9. Implement engineering measures to control dust during the cleanup;
10. Install a recognizable marker at the bottom of the excavated area prior to backfill if asbestos remains;
11. Analyze samples using modified and standard PLM and Transmission Electron Microscopy (or comparable analytical method) to assess whether contamination is present and whether sufficient excavation has occurred; and
12. Backfill excavated areas with clean soil and restore property to original pre-removal condition;

It is important to note that U.S. EPA does not assert that soil concentration of less than 1% LA are necessarily safe or acceptable, and in appropriate circumstances, soils with less than 1% LA may be removed under the current response action. Depending on the accessibility and frequency of exposure, U.S. EPA may elect to remove or isolate soils containing less than 1% LA.

During a conference call on October 28, 2004, between U.S. EPA, ATSDR and MDCH, the health agencies, in particular MDCH, cited Michigan 201 regulations in support of a 1% screening level. Based on guidance from the health agencies, U.S. EPA intends to use the MPLM for screening, remove asbestos above 1% or which may cause a inhalation hazard to a maximum estimated depth of 18 inches, and resample. If asbestos contamination remains after the 18 inch excavation, U.S. EPA will install a marker to show the extent of excavation. Activity-based sampling may be used on a case-by-case basis, in consultation with ATSDR and MDCH.

This cleanup is being conducted as a Time-Critical Removal Action. A letter was sent to Steven Kitler of MDEQ on November 4, 2004, asking the State to identify ARARs. Identified Federal and State ARARs will be complied with to the extent practicable.

In accordance with Section 300.415(l), U.S. EPA will pursue appropriate arrangements for post-removal Site controls to ensure the long-term integrity of the removal.

All hazardous substances, pollutants, or contaminants removed off-site pursuant to this removal action for treatment, storage, and disposal shall be treated, stored, or disposed of at a facility in compliance, as determined by U.S. EPA, with the U.S. EPA Off-Site Rule, 40 C.F.R. § 300.440.

The response actions described in this memorandum directly address the actual or threatened release at the Site of a hazardous substance, or of a pollutant, or of a contaminant which poses an imminent and substantial endangerment to public health, welfare, or the environment. These response actions do not impose a burden on affected property disproportionate to the extent to which that property contributes to the conditions being addressed.

The estimated cleanup contractor cost is presented in Attachment 1 and estimated project costs are summarized below.

B. Estimated Costs

The following cost estimates include costs associated with the removal actions for purposes of creating a total project ceiling. These costs are being estimated anticipating that the project will need to be performed as a fund lead action. The costs do not include any past or future investigation costs on the site. Costs are projected as follows:

Regional Removal Allowance Costs	
Cleanup Contractor Costs	$ 602,883
ERT	$ 80,000
U.S. Coast Guard Atlantic Strike Team	$ 20,000
Other Extramural Cost Not Funded from the Regional Allowance:	
START	$ 100,253
Subtotal, Extramural Subtotal	$ 803,136
Extramural Costs Contingency (20% of Subtotal)	$ 160,627
TOTAL, Removal Action Project Ceiling	$ 964,000 (rounded)

This estimate is based on a 1-acre cleanup of the Site and an estimated eight affected homes off Site. It should be noted that at the Western Mineral Site significantly more than eight homes were found to be contaminated. If greater than eight homes are found to be contaminated, the OSC will prepare an action memorandum amendment or refer the Site to other programs (State, Remedial, etc).

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

If action is delayed, potential public health risks posed by asbestos fibers will remain and may be aggravated or increased through further dispersal.

VII. OUTSTANDING POLICY ISSUES

Asbestos removals have been completed in Region 5, and around the country at removal sites under Section 300.415 of the NCP and NESHAPS regulation under 40 CFR Section 61.150. Because no national asbestos standards for soil exist, U.S. EPA is consulting with ATSDR and MDCH.

Because of the potentially broad impact of the vermiculite ore with high levels of LA, Region 5 is coordinating with U.S. EPA Headquarters and other regions to assure a consistent approach to LA issues.

VIII. ENFORCEMENT

For administrative purposes, information concerning the enforcement strategy for this site is contained in the attached Enforcement Confidential Addendum.

The total EPA costs for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be $1,465,000.

($ 964,000 + $65,000[1]) + (42.38%[2] x $1,029,000) = $1,465,000 (rounded)

IX. RECOMMENDATION

This decision document represents the selected Removal Action for the N-Forcer Site, developed in accordance with CERCLA as amended, and not inconsistent with the NCP. This decision is based on the Administrative Record for the Site. Conditions at the Site meet the NCP §300.415(b)(2) criteria for a Removal Action, and your approval is recommend. The total project ceiling, if approved, will be $964,000. Of this, $863,510 may be used for cleanup contractor costs. You may indicate your decision by signing below.

APPROVE: Richard Karl Date: 2-27-05
Richard Karl, Director
Superfund Division

DISAPPROVE:_____ Date:_____
Richard Karl, Director
Superfund Division

[1]Direct Costs include direct extramural costs and direct intramural costs.

[2]Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual total costs from this estimate will affect the United States' right to cost recovery.

Enforcement Addendum

Attachments:

Attachment 1 - Cleanup Contractor Costs
Attachment 2 - Administrative Record Index
Attachment 3 - ATSDR Draft Health Consultation
Attachment 4 - Environmental Justice Analysis
Attachment 5 - Independent Government Cost Estimate

cc: D. Chung, U.S. EPA, 5203-G
M. Chezik, U.S. DOI, w/o Enf. Addendum
Steven E. Chester, Director, Michigan DEQ, w/o Enf. Addendum
Steve Kitler, Michigan DEQ, w/o Enf. Addendum
Michael Cox, Attorney General, Michigan, w/o Enf. Addendum

bcc: M. Colvin, U.S. EPA, MRS-10J, w/o Enf. Addendum
R. Woodfork, U.S. EPA, SE-5J
A. Marouf, U.S. EPA, SR-6J, w/o Enf. Addendum
T. Geishecker, U.S. EPA, SE-5J
J. El-Zein, U.S. EPA, SE-GI
M. Gorier, U.S. EPA, SE-5J
M. Johnson, ATSD-4J, w/o Enf Addendum
W. Messenger, U.S. EPA, SE-5J
T. Krueger, C-14J
B. Kelly, U.S. EPA, SE-GI
Public Affairs, P-19J, w/o Enf. Addendum
ERB Reading File, (C. Beck), U.S. EPA, SE-5J, w/o Enf. Addendum
ERB Delivery Order File, (C. Norman), U.S. EPA, SE-5J, w/o Enf. Addendum
Record Center, (SMR-7J)
Contracting Officer, U.S. EPA, MCC-10J, w/o Enf. Addendum

ENFORCEMENT ADDENDUM

N-FORCER SITE
DEARBORN, WAYNE COUNTY, MICHIGAN

DECEMBER 2004

ENFORCEMENT CONFIDENTIAL
NOT SUBJECT TO DISCOVERY

The former W.R. Grace & Company (WRG, Henn Street Facility, and Dearborn Plant and N-Forcer Site) is located at 14300 Henn Street, Dearborn, Wayne County, Michigan. Land use in the surrounding neighborhood includes recreational, residential, educational, commercial and industrial. The Site is 2.7 acres and has a single 16,000-square-foot building (including roughly 2,000 square feet of office space) which was utilized for the processing of vermiculite ore into attic insulation and lightweight concrete aggregate. The original Site consisted of a railroad spur, where raw ore was off-loaded, two storage silos, exfoliation furnaces, and bagging/processing space. Processing of vermiculite ore ended in 1989, when WRG ceased operations at the Dearborn plant.

The current facility on Henn Street was constructed in the late 1940s by National Siding to store manufactured steel siding materials. Processing of vermiculite ore from Libby, Montana, at the Dearborn plant, was thought to start during the early 1950s, coinciding with the Zonolite Company assuming use of the facility. In 1963, the Zonolite Company was acquired by WRG and continued to use the Dearborn plant to manufacture attic insulation and lightweight concrete products using Libby vermiculite ore. The Dearborn plant was operated by WRG before its closure in 1989, while WRG closed the mine in Libby, Montana, in 1990. The Site is currently owned and operated by Die, Mold & Automation Components, Inc. (DMACI), a light industrial facility that produces N-Forcer nitrogen gas springs and wear plates. Formerly the neighboring facility to the west, DMACI expanded their operations onto the former WRG property in 1992. The storage silos and exfoliation furnaces have been dismantled and the railroad spur is no longer used.

Shipping records from the former company, W.R. Grace, showed that the plant processed about 206,055 tons of vermiculite ore from Libby, Montana, from 1966 to 1988. The processing of vermiculite from Libby at WRG likely started at lease 10 years prior to 1966. It became known that vermiculite ore mined from Libby was contaminated with asbestos fibers, including the amphibole asbestos varieties tremolite and actinolite, as well as the related fibrous asbestiform minerals winchite, richterite, and ferro-edenite.

Studies throughout the 1980s indicate that vermiculite workers showed increased rates of asbestos-related respiratory diseases. The WRG Dearborn plant is being studied as part of the National Asbestos Exposure Review (NAER) due to the high volume of

vermiculite ore processed and the high levels of Libby asbestos fibers likely released from the exfoliation process.

The Agency for Toxic Substances and Disease Registry (ATSDR) asked for U.S. EPA's assistance in collecting samples at the Site. The samples were collected on January 14, 2003. The results from the sampling found asbestos concentrations in the soil at the Site ranging from <1% to 3% outside and one garb sample from material inside the facility was 5% asbestos which is considered above the action levels used by U.S. EPA, Region 5. Based on the Site assessment performed by ATSDR, and the U.S. EPA, additional environmental sampling will be conducted to include neighboring off-site areas.

Mr. Paul Martin purchased part of the Site from his father's estate in 1991 and part of the Site from WRG in 1992. Mr. Martin's father leased a part of the property to WRG during the time WRG processed vermiculite.

CSX is believed to be the owner of the rail spur on the Site where vermiculite ore was loaded and unloaded.

WRG operated at the Site and was responsible for the release of asbestos into the environment. WRG is currently in bankruptcy and the N-Forcer cleanup is one of the claims for payment that the United States has made in that bankruptcy.

U.S. EPA issued a notice letter to WRG, CSX and Mr. Martin on July 9, 2003. In response to that notice, WRG replied that due to its bankruptcy it could not get approval for funding to do the work.

After extensive discussions with the OSC, Mr. Martin agreed to voluntarily address LA contamination inside his building. Mr. Martin also had funds sufficient to do that work, where it does not appear that he has the funds necessary to do the outdoor cleanup activity.

It is not clear to what extent the LA contamination extends to or under the spur line. CSX has also raised some question about whether it actually owns the line. CSX has cooperated in voluntarily conducting sampling around the spur line. There is some indication they may also be willing to address any contamination that is found, due to the sensitivity and difficulty of excavation activity in the vicinity of railroad tracks. This would, however, represent only a very small portion of the overall cleanup and would be the only portion of the site for which CSX could be held liable.

Because of the high levels of asbestos, this Site will be considered as a Time-Critical Fund Lead Removal Action. U.S. EPA will seek cost recovery and hopes that it will receive a significant payment from WRG.

ATTACHMENT 1
CLEANUP CONTRACTOR ESTIMATE

N-FORCER SITE
DEARBORN, WAYNE COUNTY, MICHIGAN

DECEMBER 2004

Personnel & Equipment	$ 257,008
Materials & Misc	$ 178,400
Transportation and Disposal	$ 167,475
TOTAL	**$ 602,883**

ATTACHMENT 2
ADMINISTRATIVE RECORD INDEX
N-FORCER SITE
DEARBORN, WAYNE COUNTY, MICHIGAN

DECEMBER 2004

Date	Author	Recipient	Title Description	Pages
00/00/04	B. Kelly	R. Karl	Action Memo (Pending)	
12/03	Weston	J. Justice	Draft Site Assessment Report	
10/25/04	MDCH		Draft Health Consultation (DHC)	
00/00/04	MDCH	J.El-Zein	Request for DHC Implementation	
00/00/04	MDEQ	J.El-Zein	Request for assistance	
00/00/04	ATSDR	J.El-Zein	Request for DHC Implementation	

ATTACHMENT 3
MDCH/ATSDR DRAFT HEALTH CONSULTATION

N-FORCER SITE
DEARBORN, WAYNE COUNTY, MICHIGAN

DECEMBER 2004

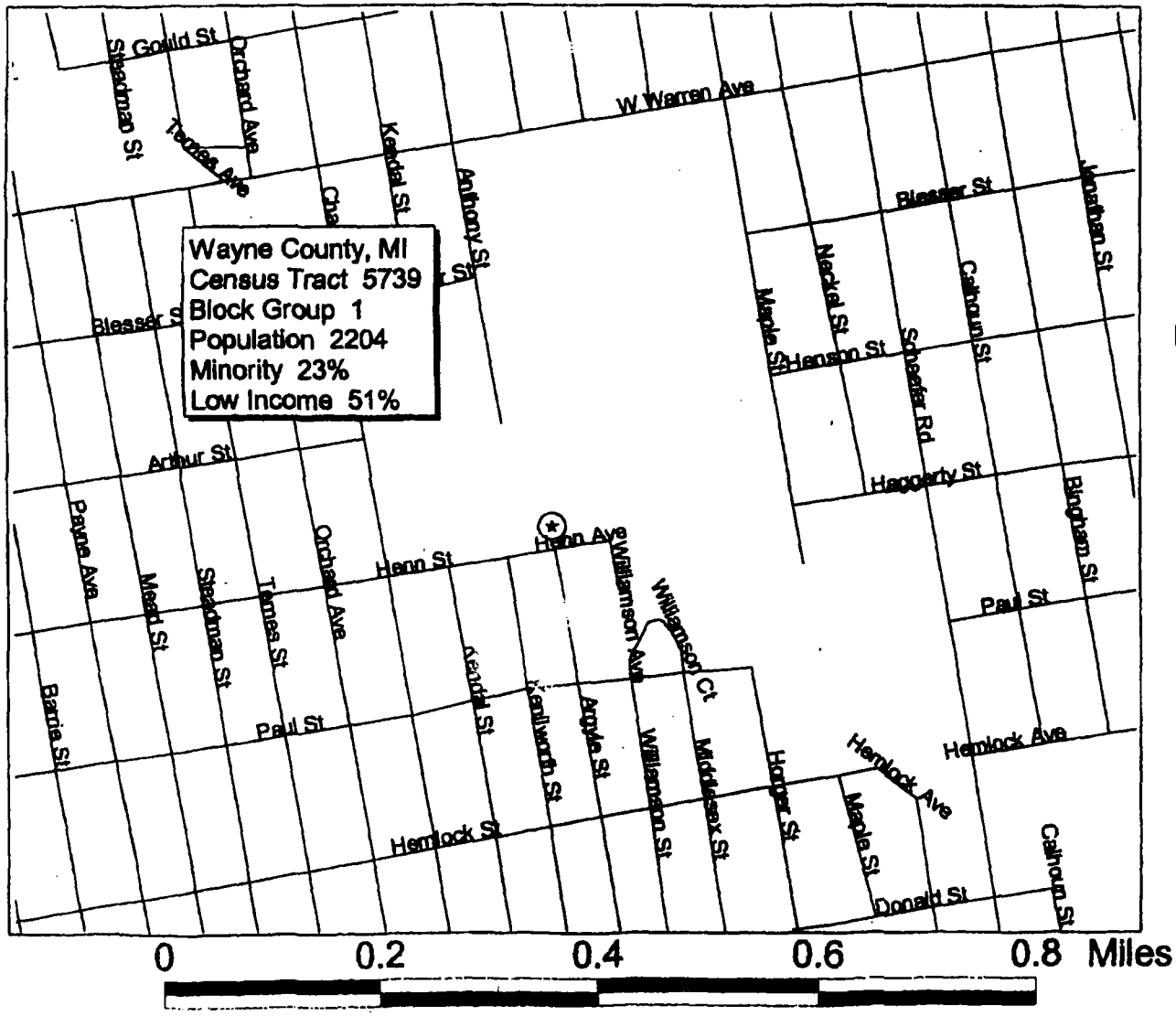
ATTACHMENT 4
ENVIRONMENTAL JUSTICE ANALYSIS

N-FORCER SITE
DEARBORN, WAYNE COUNTY, MICHIGAN

DECEMBER 2004

Region 5 Superfund EJ Analysis

N-Forcer Site Dearborn, MI



State of Michigan averages:
Minority: 18%
Low Income: 29%

U.S. EPA Region 5
Environmental Justice Case Criteria
for State of Michigan

Minority: 36% or greater

Low Income: 58% or greater

⊛ Site Location

Date of Map: 5/23/03

Source of Map: Census 2000 Database/ ArcView 3.0

ATTACHMENT 5
INDEPENDENT GOVERNMENT COST ESTIMATE

N-FORCER SITE
DEARBORN, WAYNE COUNTY, MICHIGAN

DECEMBER 2004

Independent Government Cost Estimate
N-Forcer Site
Dearborn, Michigan

REMOVAL PHASE	Days		
Mobilization	2		240000
Excavation	25	2 days per house equivalent	
Restoration	5		
Demobilization and decon	2		
	34	*Estimated Removal*	

ERRS

T&D

	Quantity	*Unit*	*Unit Price*	*Disposal Total*	*Transportation and Fees*	*Disposal and Confirmation Samples*	*Total*
Source Area							
Soils/Waste*	7,300	yards^3	22	160,600		1,500	$162,100
Contaminated Water	3,500	gallons	0.5	1,750		1,500	$3,250
PPE Disposal	25	yards^3	25	625		1,500	$2,125
						T&D TOTAL	$167,475

Personnel

Personnel	*Ave Regular/Overtime Rate*	*Hours*	*Labor Cost*	*PerDiem*	*Lodging*		*Total*
Response Manager	71.72	390	$27,971	1,734	3,638		$33,343
Forman	56.25	380	$21,375	1,734	3,638		$26,747
FCA	58.48	340	$19,883	1,734	3,638		$25,255
Equipment Operator	70.42	340	$23,943	1,734	3,638		$29,315
Cleanup Tech	40.13	340	$13,644	1,734	3,638		$19,016
Cleanup Tech	40.13	272	$10,915	1,734	3,638		$16,287
Cleanup Tech	40.13	272	$10,915	1,734	3,638		$16,287
Chemist	55.33	17	$941	NA	NA		$941
T&D Coordinator	50.58	17	$860	NA	NA		$860
Health and Safety	47.73	17	$811	NA	NA		$811
						total	$168,863

Equipment	*Daily Rate*	*Weekly Rate*	*Monthly Rate*	*Length*	*Lump Sum*		
Pick-ups (4)	240			40			$9,600
Excavator (1)	409			35			$14,315
Porta John (3)		150		9			$1,350
Loader (1)	430			35			$15,050
Dozer	488			35			$17,080
Generator	65			35			$2,275
Pressure Washer (2)	80			40			$3,200
Decon Trailer	50			35			$1,750
Storage Trailer	28			40			$1,120
Water, dust suppression					$5,000		$5,000
Fuel	100			40			$4,000
Office furniture					$1,500		$1,500
Misc Field Equipment	250			35			$8,750
Computer-Portable PC (2)	22			40			$880
Phone Service	35			35			$1,225
Site Trailer (1)	30			35			$1,050
						total	$88,145
						Pers & Equip TOTAL	$257,008

Materials & Miscellaneous

	Quantity	*Unit*	*Unit Price*	*Cost*	*Lump Sum*		*Bulk Estimate*
Liner	30,000	sq ft	2	60,000	NA	NA	$60,000
Restoration					$25,000		$25,000
Backfill	7,300	yrds3	8				$58,400
Asbestos air monitoring support					$35,000		$35,000
						MISC. TOTAL	$178,400
						ERRS SUBTOTAL	**$602,883**

EPA		
Environmental		
Response Team		
Air Modeling		$40,000
Sampling		$40,000
	ERT TOTAL	**$80,000**

USCG Atlantic		
Strike Team		
Personnel		$15,000
PPE & Misc		$5,000
	AST TOTAL	**$20,000**

START

	Rate	Hours	Labor Cost/Unit Cost	PerDiem	Lodging	Cost	TOTAL
Removal Support	65	340	$22,100	1,734	3,638		$27,472
Sampling & Off-Site support	65	300	$19,500	1,734	3,638		$24,872
START- Project Mgt.	100	96	$9,600	0	0		$9,600
GIS/Engineering	120	40	$4,800				$4,800
Confirmation Air Sampling						$10,000	$10,000
Equipment: vehicle, air monitoring, supplies			$200				$6,800
PMO 20%							$16,709
						START TOTAL	**$100,253**

EXTRAMURAL COSTS:

<u>Regional Removal Allowance Costs</u>	
ERRS, ERT, USCG	$702,883
<u>Other Extramural Cost Not Funded from the Regional Allowance:</u>	
START, including multiplier costs	$100,253
Subtotal, Extramural Subtotal	$803,135
Extramural Cost Contingency - 20%	$160,627
TOTAL, Removal Action Project Ceiling	$963,762

* 8 homes * 1/4 acres per house = 2 acres +1 on-site acre = 3 acres (3*6272665 in2) x 18 inches (depth of excavation) /46656 = 7260 y3

1 acre =	1 y3 =
6272665 in2	46656 in

ATTACHMENT 5
INDEPENDENT GOVERNMENT COST ESTIMATE

N-FORCER SITE
DEARBORN, WAYNE COUNTY, MICHIGAN

DECEMBER 2004

Independent Government Cost Estimate
N-Forcer Site
Dearborn, Michigan

REMOVAL PHASE	Days			
Mobilization	2			240000
Excavation	25	2 days per house equivalent		
Restoration	5			
Demobilization and decon	2			
	34	*Estimated Removal*		

ERRS

T&D

	Quantity	*Unit*	*Unit Price*	*Disposal Total*	*Transportation and Fees*	*Disposal and Confirmation Samples*	*Total*
Source Area							
Soils/Waste*	7,300	yards^3	22	160,600		1,500	$162,100
Contaminated Water	3,500	gallons	0.5	1,750		1,500	$3,250
PPE Disposal	25	yards^3	25	625		1,500	$2,125
						T&D TOTAL	$167,475

Personnel

Personnel	*Ave Regular/Overtime Rate*	*Hours*	*Labor Cost*	*PerDiem*	*Lodging*		*Total*
Response Manager	71.72	390	$27,971	1,734	3,638		$33,343
Forman	56.25	380	$21,375	1,734	3,638		$26,747
FCA	58.48	340	$19,883	1,734	3,638		$25,255
Equipment Operator	70.42	340	$23,943	1,734	3,638		$29,315
Cleanup Tech	40.13	340	$13,644	1,734	3,638		$19,016
Cleanup Tech	40.13	272	$10,915	1,734	3,638		$16,287
Cleanup Tech	40.13	272	$10,915	1,734	3,638		$16,287
Chemist	55.33	17	$941	NA	NA		$941
T&D Coordinator	50.58	17	$860	NA	NA		$860
Health and Safety	47.73	17	$811	NA	NA		$811
						total	$168,863

Equipment	*Daily Rate*	*Weekly Rate*	*Monthly Rate*	*Length*	*Lump Sum*		
Pick-ups (4)	240			40			$9,600
Excavator (1)	409			35			$14,315
Porta John (3)		150		9			$1,350
Loader (1)	430			35			$15,050
Dozer	488			35			$17,080
Generator	65			35			$2,275
Pressure Washer (2)	80			40			$3,200
Decon Trailer	50			35			$1,750
Storage Trailer	28			40			$1,120
Water, dust suppression					$5,000		$5,000
Fuel	100			40			$4,000
Office furniture					$1,500		$1,500
Misc Field Equipment	250			35			$8,750
Computer-Portable PC (2)	22			40			$880
Phone Service	35			35			$1,225
Site Trailer (1)	30			35			$1,050
						total	$88,145
						Pers & Equip TOTAL	$257,008

Materials & Miscellaneous

	Quantity	*Unit*	*Unit Price*	*Cost*	*Lump Sum*		*Bulk Estimate*
Liner	30,000	sq ft	2	60,000	NA	NA	$60,000
Restoration					$25,000		$25,000
Backfill	7,300	yrds3	8				$58,400
Asbestos air monitoring support					$35,000		$35,000
						MISC. TOTAL	$178,400
						ERRS SUBTOTAL	**$602,883**

EPA		
Environmental		
Response Team		
Air Modeling		$40,000
Sampling		$40,000
	ERT TOTAL	**$80,000**

USCG Atlantic		
Strike Team		
Personnel		$15,000
PPE & Misc		$5,000
	AST TOTAL	**$20,000**

START

	Rate	Hours	Labor Cost/Unit Cost	PerDiem	Lodging	Cost	TOTAL
Removal Support	65	340	$22,100	1,734	3,638		$27,472
Sampling & Off-Site support	65	300	$19,500	1,734	3,638		$24,872
START- Project Mgt.	100	96	$9,600	0	0		$9,600
GIS/Engineering	120	40	$4,800				$4,800
Confirmation Air Sampling						$10,000	$10,000
Equipment: vehicle, air monitoring, supplies			$200				$6,800
PMO 20%							$16,709
						START TOTAL	**$100,253**

EXTRAMURAL COSTS:

Regional Removal Allowance Costs	
ERRS, ERT, USCG	$702,883
Other Extramural Cost Not Funded from the Regional Allowance:	
START, including multiplier costs	$100,253
Subtotal, Extramural Subtotal	$803,135
Extramural Cost Contingency - 20%	$160,627
TOTAL, Removal Action Project Ceiling	$963,762

* 8 homes * 1/4 acres per house = 2 acres +1 on-site acre = 3 acres (3*6272665 in2) x 18 inches (depth of excavation) /46656 = 7260 y3

1 acre =	1 y3 =
6272665 in2	46656 in